

IN THE SPECIFICATION

Please amend the Title on page 1 as follows:

LATEX AND ITS PREPARATION OBTAINABLE BY A GRADIENT REGIME  
REACTION

Please replace the paragraph beginning at page 11, line 14, to page 14, line 8, with the following rewritten paragraph:

Suitable free-radical polymerization initiators include all those capable of triggering a free-radical emulsion polymerization. These are preferably persulfate salts, such as ammonium persulfate, potassium persulfate or sodium persulfate, for example, azo compounds, e.g. 2,2'-azobisisobutyronitrile, and those described in Kirk-Othmer, Encyclopedia of Chemical Technology, Fourth Edition, Volume 14, p. 451 – p. 452, Table 9, and organic peroxo compounds. The organic peroxo compounds may be selected from the following group: dialkyl peroxides (examples are given in: Kirk-Othmer, Encyclopedia of Chemical Technology, Fourth Edition, Volume 14, p. 445, Table 6), diacyl peroxides (examples are given in: Kirk-Othmer, Encyclopedia of Chemical Technology, Fourth Edition, Volume 14, p. 440, Table 3), dialkyl peroxydicarbonates (examples are given in : Kirk-Othmer, Encyclopedia of Chemical Technology, Fourth Edition, Volume 14, p. 446, Table 7), tert-alkyl peroxyesters (examples are given in: Kirk-Othmer, Encyclopedia of Chemical Technology, Fourth Edition, Volume 14, p. 442, Table 4), OO-tert-alkyl O-alkyl monoperoxyarbonates (OO-tert-butyl-O-isopropyl monoperoxyarbonate), di(tert-alkylperoxy) ketals (examples are given in: Kirk-Othmer, Encyclopedia of Chemical Technology, Fourth Edition, Volume 14, p. 444, Table 5), di-tert-alkyl peroxides, di-tert-alkyl hydroperoxides (examples are given in: Kirk-Othmer, Encyclopedia of Chemical Technology, Fourth Edition, Volume 14, p. 447, Table 8), ketone peroxides (methyl ethyl

ketone peroxide, methyl isobutyl ketone peroxide, cyclohexanone peroxide, 2,4-pentanedione peroxide). It is also possible to use combined systems. In that case at least one persulfate and/or peroxide and/or hydroperoxide are used as initiators. These are combined with a reducing agent. Possible combinations may be the following: peroxide and/or hydroperoxide with the sodium metal salt of hydroxymethanesulfinic acid, with the sodium metal salt of hydroxysulfinatoacetic acid, with the sodium metal salt of hydroxysulfonatoacetic acid, with sodium sulfite, with ascorbic acid, with sodium metabisulfite, and with combinations of these. Combined systems which additionally include a small amount of a metal compound which is soluble in the polymerization medium and whose metallic component is able to exist in a plurality of valence states are also used (e.g. ascorbic acid/iron(II) sulfate/hydrogen peroxide, in which instead of the ascorbic acid it is also possible to use the sodium metal salt of hydroxysulfonatoacetic acid, sodium sulfite, sodium hydrogen sulfite, sodium disulfite, and combinations thereof. Instead of water-soluble Fe(II) salts it is also possible to use combinations of water-soluble Fe/V salts. Instead of hydrogen peroxide it is also possible to use organic peroxides and/or hydroperoxides or alkali metal peroxodisulfates and/or ammonium peroxodisulfate). Initiation with the aid of radiation and photoinitiators is also possible. Possible photoinitiators are given in Kirk-Othmer, Encyclopedia of Chemical Technology, Fourth Edition, Volume 14, p. 455, Table 10, and in: Kirk-Othmer, Encyclopedia of Chemical Technology, Fourth Edition, Volume 14, p. 457, Table 11. Preference is given to initiators based on persulfate salts such as: sodium persulfate, potassium persulfate, ammonium persulfate, organic peroxo compounds, and combinations of peroxides or hydroperoxides with a reducing agent. The organic peroxo compounds may be selected from the following group: dialkyl peroxides (examples are given in: Kirk-Othmer, Encyclopedia of Chemical Technology, Fourth Edition, Volume 14, p. 445, Table 6), diacyl peroxides (examples are given in: Kirk-Othmer, Encyclopedia of Chemical Technology,

Fourth Edition, Volume 14, p. 440, Table 3), tert-alkyl peroxyesters (examples are given in: Kirk-Othmer, Encyclopedia of Chemical Technology, Fourth Edition, Volume 14, p. 442, Table 4), di-tert-alkyl peroxides, di-tert-alkyl hydroperoxides (examples are given in: Kirk-Othmer, Encyclopedia of Chemical Technology, Fourth Edition, Volume 14, p. 447, Table 8), ketone peroxides (methyl ethyl ketone peroxide, methyl isobutyl ketone peroxide, cyclohexanone peroxide, 2,4-pentanedione peroxide). It is also possible to use combined systems. In that case at least one persulfate and/or peroxide and/or hydroperoxide are used as initiators. These are combined with a reducing agent. Possible combinations may be the following: peroxide and/or hydroperoxide with the sodium metal salt of hydroxymethanesulfinic acid, with the sodium metal salt of hydroxysulfinatoacetic acid, with the sodium metal salt of hydroxysulfonatoacetic acid, with sodium sulfite, with ascorbic acid, with sodium metabisulfite, and with combinations of these. Combined systems which additionally include a small amount of a metal compound which is soluble in the polymerization medium and whose metallic component is able to exist in a plurality of valence states are also used (e.g. ascorbic acid/iron(II) sulfate/hydrogen peroxide, in which instead of the ascorbic acid it is also possible to use the sodium metal salt of hydroxysulfonatoacetic acid, sodium sulfite, sodium hydrogen sulfite, sodium disulfite, and combinations thereof. Instead of water-soluble Fe(II) salts it is also possible to use combinations of water-soluble Fe/V salts. Instead of hydrogen peroxide it is also possible to use organic peroxides and/or hydroperoxides or alkali metal peroxodisulfates and/or ammonium peroxodisulfate). Particular preference is given to persulfate salts such as sodium persulfate, potassium sulfate, ammonium persulfate. In the worked-up end product these initiators may be present in a range of 0.1 – 3% by weight, preferably from 0.3 to 2% by weight, based on the overall mass of polymerizable reactants. The amount of free-radical polymerization initiators includes all values and subvalues therebetween, especially including

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0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9, 1.0, 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9, 2.0, 2.1, 2.2,  
2.3, 2.4, 2.5, 2.6, 2.7, [[2.8]] and 2.8% by weight.

Please replace the Abstract with the following Abstract: